

CLON-012CIPCON
United States Application Serial No. 10/602,550

AMENDMENTS

1. **(Currently Amended)** An array-based hybridization assay comprising the steps of:
 - contacting an array(s) with a test set of target nucleic acids and a control set of target nucleic acids, wherein said control set [[pool]] of target nucleic acids comprises at least 20 distinct control set target nucleic acids, wherein each of said at least 20 distinct control set target nucleic acids is of known sequence and is present in known amount and is known to be complementary to a probe nucleic acid present on said array; and
 - detecting hybridization patterns of said test and control sets of target nucleic acids to said array(s).
2. **(Currently Amended)** The assay according to Claim 1, wherein at least a subset of [[the]] probe nucleic acids present on said array are represented in said control set of target nucleic acids.
3. **(Original)** The assay according to Claim 2, wherein all of said probe nucleic acids present on said array are represented in said control set of target nucleic acids.
4. **(Original)** The assay according to Claim 1, wherein said test set of target nucleic acids is labeled with the same label as said control set of target nucleic acids.
5. **(Original)** The assay according to Claim 1, wherein said test set of target nucleic acids is labeled with a different label from said control set of target nucleic acids.
6. **(Original)** The assay according to Claim 1, wherein said test and control sets of target nucleic acids are contacted with the same array.

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7. **(Original)** The assay according to Claim 1, wherein said test and control sets of target nucleic acids are contacted with first and second arrays, respectively, wherein each of said first and second arrays display the same probe nucleic acids.

8. **(Original)** The assay according to Claim 5, wherein said test and control sets of target nucleic acids are contacted with the same array.

9. **(Original)** The assay according to Claim 8, wherein said assay further comprises generating said control set of target nucleic acids.

10. **(Original)** The assay method according to Claim 1, wherein said assay further comprises generating said test set of target nucleic acids.

11. **(Original)** The assay method according to Claim 10, wherein said test set generation comprises:

contacting an initial nucleic acid sample with a control set of target nucleic acids under conditions sufficient to produce duplex structures made up of complementary sample initial nucleic acids hybridized to control target nucleic acids of said control set;

isolating said resultant duplex structures; and
recovering control target nucleic acid components of said duplex structures to produce said test set of target nucleic acids.

12. **(Original)** The assay according to Claim 1, wherein said control set of target nucleic acids comprises at least 50 distinct target nucleic acids.

13. **(Original)** The method according to Claim 1, wherein said method further comprises comparing said test and control hybridization patterns.

14. **(Original)** The assay according to Claim 1, wherein said test target nucleic acids and said control target nucleic acids are contacted to said array simultaneously.

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15. **(Original)** The assay according to Claim 1, wherein said test target nucleic acids and said control target nucleic acids are contacted to said array sequentially.

16. **(Original)** The assay according to Claim 1, wherein said assay further comprises calculating individual test target nucleic acid concentrations present in said set of test target nucleic acids.

17-25. **(Cancelled)**

Please add the following new claims:

26. **(New)** An array-based hybridization assay comprising the steps of:

contacting an array(s) with a test set of target nucleic acids and a control set of target nucleic acids, wherein said control set of target nucleic acids comprises at least 20 distinct control set target nucleic acids, wherein each of said at least 20 distinct control set target nucleic acids is of known sequence and is present in known amount and is known to be complementary to a probe nucleic acid present on said array, wherein said probe nucleic acid corresponds to a target gene of interest in the sample; and

detecting hybridization patterns of said test and control sets of target nucleic acids to said array(s).

27. **(New)** The assay according to Claim 26, wherein at least a subset of probe nucleic acids present on said array are represented in said control set of target nucleic acids.

28. **(New)** The assay according to Claim 27, wherein all of said probe nucleic acids present on said array are represented in said control set of target nucleic acids.

29. **(New)** The assay according to Claim 26, wherein said test set of target nucleic

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acids is labeled with the same label as said control set of target nucleic acids.

30. **(New)** The assay according to Claim 26, wherein said test set of target nucleic acids is labeled with a different label from said control set of target nucleic acids.

31. **(New)** The assay according to Claim 26, wherein said test and control sets of target nucleic acids are contacted with the same array.

32. **(New)** The assay according to Claim 26, wherein said test and control sets of target nucleic acids are contacted with first and second arrays, respectively, wherein each of said first and second arrays display the same probe nucleic acids.

33. **(New)** The assay method according to Claim 26, wherein said assay further comprises generating said test set of target nucleic acids.

34. **(New)** The assay method according to Claim 33, wherein said test set generation comprises:

contacting an initial nucleic acid sample with a control set of target nucleic acids under conditions sufficient to produce duplex structures made up of complementary sample initial nucleic acids hybridized to control target nucleic acids of said control set;

isolating said resultant duplex structures; and

recovering control target nucleic acid components of said duplex structures to produce said test set of target nucleic acids.